WHAT IS CLAIMED IS:

1. A method, comprising:

receiving a coordinate value associated with a Trellis decoder, the received coordinate value including an integer portion and a fractional portion;

evaluating the least significant bit of the integer portion; and

calculating a difference between the received coordinate value and a pre-determined coordinate value based on the fractional portion and said evaluation.

2. The method of claim 1, wherein the received coordinate value comprises one of an X axis value and a Y axis value.

3. The method of claim 1, wherein said evaluation comprises determining whether the least significant bit of the integer portion is a zero or a one.

4. The method of claim 3, wherein the pre-determined coordinate value is an odd number and said calculating comprises, when the least significant bit of the integer portion is a zero:

setting the difference to one plus the fractional portion.

5. The method of claim 3, wherein the pre-determined coordinate value is an odd number and said calculating comprises, when the least significant bit of the integer portion is a zero:

setting the difference to one minus the fractional portion.

6. The method of claim 3, wherein the pre-determined coordinate value is an odd number and said calculating comprises, when the least significant bit of the integer portion is a one:

setting the difference to the fractional portion.

7. The method of claim 3, wherein the pre-determined coordinate value is an odd number and said calculating comprises, when the least significant bit of the integer portion is a one:

setting the difference to two minus the fractional portion.

8. The method of claim 1, further comprising:

determining a distance value associated with a distance between a received coordinate location and a pre-determined constellation point based at least in part on the difference.

9. The method of claim 8, further comprising:

performing a Trellis decoding process based at least in part on the distance value.

10. A method, comprising:

receiving an X coordinate value associated with a Trellis decoder, the received X coordinate value including an X integer portion and an X fractional portion;

setting a first X difference between the received X coordinate value and a first pre-determined X coordinate value to one plus the fractional portion when the least significant bit of the integer portion is a zero;

setting a second X difference between the received X coordinate value and a second pre-determined X coordinate value to one minus the fractional portion when the least significant bit of the integer portion is a zero;

setting the first X difference between the received X coordinate value and the first pre-determined X coordinate value to the fractional portion when the least significant bit of the integer portion is a one; and

setting the second X difference to two minus the fractional portion when the least significant bit of the integer portion is a one.

11. The method of claim 10, further comprising:

determining a first distance based on the first X difference and the first Y difference;

determining a second distance based on the second X difference and the second Y difference; and

performing a Trellis decoding process based at least in part on the first and second distance values.

12. An apparatus, comprising:

an input path to receive a coordinate value associated with a Trellis decoder, the received coordinate value including an integer portion and a fractional portion; and

a multiplexer to receive (i) the fractional portion, (ii) a the fractional portion plus one, and (iii) the least significant bit of the integer portion as a control signal.

13. The apparatus of claim 12, further comprising:

a multiplexer to receive (i) one minus the fractional portion, (ii) two minus the fractional portion, and (iii) the least significant bit of the integer portion as a control signal.

14. An apparatus, comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

receiving a coordinate value associated with a Trellis decoder, the received coordinate value including an integer portion and a fractional portion,

evaluating the least significant bit of the integer portion, and

calculating a difference between the received coordinate value and a pre-determined coordinate value based on the fractional portion and said evaluation.

15. The apparatus of claim 14, wherein the received coordinate value comprises one of an X axis value and a Y axis value.

16. A method, comprising:

receiving an X value and a Y value representing differences between a received location and a pre-determined constellation point associated with a Trellis decoder; and

estimating a distance between the received location and the pre-determined constellation point based on one of the X and Y values.

17. The method of claim 16, wherein said estimating comprises:

estimating the distance as the X value multiplied by a pre-determined value when the X value is larger than the Y value; and

estimating the distance as the Y value multiplied by the pre-determined value when the Y value is larger than the X value.

18. The method of claim 17, wherein said estimating when the X value is larger than the Y value comprises:

left shifting the X value a pre-determined number of bits;

adding (i) the shifted X value to (ii) the X value multiplied by a pre-determined constant; and

right shifting the result of the addition a pre-determined number of bits.

19. The method of claim 17, wherein said estimating when the Y value is larger than the X value comprises:

left shifting the Y value a pre-determined number of bits;

adding (i) the shifted Y value to (ii) the Y value multiplied by a pre-determined constant; and

right shifting the result of the addition a pre-determined number of bits.

20. A modem, comprising:

an asynchronous digital subscriber line data pump, including:

an input path to receive a coordinate value associated with a Trellis decoder, the received coordinate value including an integer portion and a fractional portion, and

a multiplexer to receive (i) the fractional portion, (ii) a the fractional portion plus one, and (iii) the least significant bit of the integer portion as a control signal; and

an Ethernet interface.

21. The modem of claim 20, wherein the data pump further comprises:

a multiplexer to receive (i) one minus the fractional portion, (ii) two minus the fractional portion, and (iii) the least significant bit of the integer portion as a control signal.

22. A digital subscriber line access multiplexer, comprising:

a modem, including:

an input path to receive a coordinate value associated with a Trellis decoder, the received coordinate value including an integer portion and a fractional portion, and

a multiplexer to receive (i) the fractional portion, (ii) a the fractional portion plus one, and (iii) the least significant bit of the integer portion as a control signal; and

an asynchronous transfer mode interface.

23. The digital subscriber line access multiplexer of claim 22, wherein the modem further comprises:

a multiplexer to receive (i) one minus the fractional portion, (ii) two minus the fractional portion, and (iii) the least significant bit of the integer portion as a control signal.